

## **AMENDMENTS TO THE CLAIMS:**

The listing of claims will replace all prior versions and listings of claims in the application:

### **Listing of Claims:**

1-10. (Canceled)

11. (Currently amended) A purified antibody, which specifically binds with a peptide of human immunodeficiency virus type 1, wherein said peptide is selected from the group consisting of:

(a) the peptide having the following sequence of

### **ORF-Q:**

Met-Glu-Asn-Arg-Trp-Gln-Val-Met-Ile-Val-Trp-Gln-Val-Asp-Arg-Met-Arg-Ile-Arg-Thr-Trp-Lys-Ser-Leu-Val-Lys-His-His-Met-Tyr-Val-Ser-Gly-Lys-Ala-Arg-Gly-Trp-Phe-Tyr-Arg-His-His-Tyr-Glu-Ser-Pro-His-Pro-Arg-Ile-Ser-Ser-Gly-Val-His-Ile-Pro-Leu-Gly-Asp-Ala-Arg-Leu-Val-Ile-Thr-Thr-Tyr-Trp-Gly-Leu-His-Thr-Gly-Glu-Arg-Asp-Trp-His-Leu-Gly-Gln-Gly-Val-Ser-Ile-Glu-Trp-Arg-Lys-Lys-Arg-Tyr-Ser-Thr-Gln-Val-Asp-Pro-Glu-Leu-Ala-Asp-Gln-Leu-Ile-His-Leu-Tyr-Tyr-Phe-Asp-Cys-Phe-Ser-Asp-Ser-Ala-Ile-Arg-Lys-Ala-Leu-Leu-Gly-His-Ile-Val-Ser-Pro-Arg-Cys-Glu-Tyr-Gln-Ala-Gly-His-Asn-Lys-Val-Gly-Ser-Leu-Gln-Tyr-Leu-Ala-Leu-Ala-Ala-Leu-Ile-Thr-Pro-Lys-Lys-Ile-Lys-Pro-Pro-Leu-Pro-Ser-Val-Thr-Lys-Leu-Thr-Glu-Asp-Arg-Trp-Asn-Lys-Pro-Gln-Lys-Thr-Lys-Gly-His-Arg-Gly-Ser-His-Thr-Met-Asn-Gly-His;

(b) the peptide having the following sequence of

**ORF-R:**

Met-Gly-Gly-Lys-Trp-Ser-Lys-Ser-Ser-Val-Val-Gly-Trp-Pro-Thr-Val-Arg-Gly-Arg-Met-Arg-Arg-Ala-Glu-Pro-Ala-Ala-Asp-Gly-Val-Gly-Ala-Ala-Ser-Arg-Asp-Leu-Glu-Lys-His-Gly-Ala-Ile-Thr-Ser-Ser-Asn-Thr-Ala-Ala-Thr-Asn-Ala-Ala-Cys-Ala-Trp-Leu-Glu-Ala-Gln-Glu-Glu-Glu-Glu-Val-Gly-Phe-Pro-Val-Thr-Pro-Gln-Val-Pro-Leu-Arg-Pro-Met-Thr-Tyr-Lys-Ala-Ala-Val-Asp-Leu-Ser-His-Phe-Leu-Lys-Glu-Lys-Gly-Gly-Leu-Glu-Gly-Leu-Ile-His-Ser-Gln-Arg-Arg-Gln-Asp-Ile-Leu-Asp-Leu-Trp-Ile-Tyr-His-Thr-Gln-Gly-Tyr-Phe-Pro-Asp-Trp-Gln-Asn-Tyr-Thr-Pro-Gly-Pro-Gly-Val-Arg-Tyr-Pro-Leu-Thr-Phe-Gly-Trp-Cys-Tyr-Lys-Leu-Val-Pro-Val-Glu-Pro-Asp-Lys-Val-Glu-Glu-Ala-Asn-Lys-Gly-Glu-Asn-Thr-Ser-Leu-Leu-His-Pro-Val-Ser-Leu-His-Gly-Met-Asp-Asp-Pro-Glu-Arg-Glu-Val-Leu-Glu-Trp-Arg-Phe-Asp-Ser-Arg-Leu-Ala-Phe-His-His-Val-Ala-Arg-Glu-Leu-His-Pro-Glu-Tyr-Phe-Lys-Asn-Cys;

(c) the peptide having the following sequence of

**ORF-1:**

Met-Glu-Gln-Ala-Pro-Glu-Asp-Gln-Gly-Pro-Gln-Arg-Asp-Pro-His-Asn-Glu-Trp-Thr-Leu-Gln-Leu-Leu-Glu-Glu-Leu-Lys-Asn-Glu-Ala-Val-Arg-His-Phe-Pro-Arg-Ile-Trp-Leu-His-Gly-Leu-Gly-Gln-His-Ile-Tyr-Glu-Thr-Tyr-Gly-Asp-Thr-Trp-Ala-Gly-Val-Glu-Ala-Ile-Ile-Arg-Ile-Leu-Gln-Gln-Leu-Leu-Phe-Ile-His-Phe-Arg-Ile-Gly-Cys-Arg-His-Ser-Arg-Ile-Gly-Val-Thr-Gln-Gln-Arg-Arg-Ala-Arg-Asn-Gly-Ala-Ser-Arg-Ser; and

(d) the peptide having the following sequence of

**ORF-4:**

Met-Gln-Pro-Ile-Gln-Ile-Ala-Ile-Ala-Ala-Leu-Val-Val-Ala-Ile-Ile-Ile-Ala-Ile-Val-Val-Trp-Ser-Ile-Val-Ile-Ile-Glu-Tyr-Arg-Lys-Ile-Leu-Arg-Gln-Arg-Lys-Ile-Asp-Arg-Leu-Ile-Asp-Arg-Leu-Ile-Glu-Arg-Ala-Glu-Asp-Ser-Gly-Asn-Glu-Ser-Glu-Gly-Glu-Ile-Ser-Ala-Leu-Val-Glu-Met-Gly-Val-Glu-Met-Gly-His-His-Ala-Pro-Trp-Asp-Ile-Asp-Asp-Leu.

12-16. (Canceled).

17. (Currently amended) A purified monoclonal antibody, which specifically binds with a peptide of human immunodeficiency virus type 1, wherein said peptide is selected from the group consisting of:

(a) the peptide having the following sequence of

**ORF-Q:**

Met-Glu-Asn-Arg-Trp-Gln-Val-Met-Ile-Val-Trp-Gln-Val-Asp-Arg-Met-Arg-Ile-Arg-Thr-Trp-Lys-Ser-Leu-Val-Lys-His-His-Met-Tyr-Val-Ser-Gly-Lys-Ala-Arg-Gly-Trp-Phe-Tyr-Arg-His-His-Tyr-Glu-Ser-Pro-His-Pro-Arg-Ile-Ser-Ser-Glu-Val-His-Ile-Pro-Leu-Gly-Asp-Ala-Arg-Leu-Val-Ile-Thr-Thr-Tyr-Trp-Gly-Leu-His-Thr-Gly-Glu-Arg-Asp-Trp-His-Leu-Gly-Gln-Gly-Val-Ser-Ile-Glu-Trp-Arg-Lys-Lys-Arg-Tyr-Ser-Thr-Gln-Val-Asp-Pro-Glu-Leu-Ala-Asp-Gln-Leu-Ile-His-Leu-Tyr-Tyr-Phe-Asp-Cys-Phe-Ser-Asp-Ser-Ala-Ile-Arg-Lys-Ala-Leu-Leu-Gly-His-Ile-Val-Ser-Pro-Arg-Cys-Glu-Tyr-Gln-Ala-Gly-His-Asn-Lys-Val-Gly-Ser-Leu-Gln-Tyr-Leu-Ala-Leu-Ala-Ala-Leu-Ile-Thr-Pro-Lys-Lys-Ile-Lys-Pro-Pro-Leu-Pro-Ser-Val-Thr-Lys-Leu-Thr-Glu-Asp-Arg-Trp-Asn-Lys-Pro-Gln-Lys-Thr-Lys-Gly-His-Arg-Gly-Ser-His-Thr-Met-Asn-Gly-His;

(b) the peptide having the following sequence of

**ORF-R:**

Met-Gly-Gly-Lys-Trp-Ser-Lys-Ser-Ser-Val-Val-Gly-Trp-Pro-Thr-Val-Arg-Glu-Arg-Met-Arg-Arg-Ala-Glu-Pro-Ala-Ala-Asp-Gly-Val-Gly-Ala-Ala-Ser-Arg-Asp-Leu-Glu-Lys-His-Gly-Ala-Ile-Thr-Ser-Ser-Asn-Thr-Ala-Ala-Thr-Asn-Ala-Ala-Cys-Ala-Trp-Leu-Glu-Ala-Gln-Glu-Glu-Glu-Glu-Val-Gly-Phe-Pro-Val-Thr-Pro-Gln-Val-Pro-Leu-Arg-Pro-Met-Thr-Tyr-Lys-Ala-Ala-Val-Asp-Leu-Ser-His-Phe-Leu-Lys-Glu-Lys-Gly-Gly-Leu-Glu-Gly-Leu-Ile-His-Ser-Gln-Arg-Arg-Gln-Asp-Ile-Leu-Asp-Leu-Trp-Ile-Tyr-His-Thr-Gln-Gly-Tyr-Phe-Pro-Asp-Trp-Gln-Asn-Tyr-Thr-Pro-Gly-Pro-Gly-Val-Arg-Tyr-Pro-Leu-Thr-Phe-Gly-Trp-Cys-Tyr-Lys-Leu-Val-Pro-Val-Glu-Pro-Asp-Lys-Val-Glu-Glu-Ala-Asn-Lys-Gly-Glu-Asn-Thr-Ser-Leu-Leu-His-Pro-Val-Ser-Leu-His-Gly-Met-Asp-Asp-Pro-Glu-Arg-Glu-Val-Leu-Glu-Trp-Arg-Phe-Asp-Ser-Arg-Leu-Ala-Phe-His-His-Val-Ala-Arg-Glu-Leu-His-Pro-Glu-Tyr-Phe-Lys-Asn-Cys;

(c) the peptide having the following sequence of

**ORF-1:**

Met-Glu-Gln-Ala-Pro-Glu-Asp-Gln-Gly-Pro-Gln-Arg-Asp-Pro-His-Asn-Glu-Trp-Thr-Leu-Gln-Leu-Leu-Glu-Glu-Leu-Lys-Asn-Glu-Ala-Val-Arg-His-Phe-Pro-Arg-Ile-Trp-Leu-His-Gly-Leu-Gly-Gln-His-Ile-Tyr-Glu-Thr-Tyr-Gly-Asp-Thr-Trp-Ala-Gly-Val-Glu-Ala-Ile-Ile-Arg-Ile-Leu-Gln-Gln-Leu-Leu-Phe-Ile-His-Phe-Arg-Ile-Gly-Cys-Arg-His-Ser-Arg-Ile-Gly-Val-Thr-Gln-Gln-Arg-Arg-Ala-Arg-Asn-Gly-Ala-Ser-Arg-Ser; and

(d) the peptide having the following sequence of

**ORF-4:**

Met-Gln-Pro-Ile-Gln-Ile-Ala-Ile-Ala-Ala-Leu-Val-Val-Ala-Ile-Ile-Ile-Ala-Ile-Val-Val-Trp-Ser-Ile-Val-Ile-Ile-Glu-Tyr-Arg-Lys-Ile-Leu-Arg-Gln-Arg-Lys-Ile-Asp-Arg-Leu-Ile-Asp-Arg-

Leu-Ile-Glu-Arg-Ala-Glu-Asp-Ser-Gly-Asn-Glu-Ser-Glu-Gly-Glu-Ile-Ser-Ala-Leu-Val-Glu-Met-Gly-Val-Glu-Met-Gly-His-His-Ala-Pro-Trp-Asp-Ile-Asp-Asp-Leu.

18-19. (Canceled)

20. (Previously presented) The purified antibody of claim 11, wherein the peptide has the sequence of HIV-1 ORF-Q.

21. (Previously presented) The purified antibody of claim 11, wherein the peptide has the sequence of HIV-1 ORF-R.

22. (Previously presented) The purified antibody of claim 11, wherein the peptide has the sequence of HIV-1 ORF-1.

23. (Previously presented) The purified antibody of claim 11, wherein the peptide has the sequence of HIV-1 ORF-4.

24-27. (Canceled)

28. (Previously presented) The purified monoclonal antibody of claim 17, wherein the peptide has the sequence of HIV-1 ORF-Q.

29. (Previously presented) The purified monoclonal antibody of claim 17, wherein the peptide has the sequence of HIV-1 ORF-R.

30. (Previously presented) The purified monoclonal antibody of claim 17, wherein the peptide has the sequence of HIV-1 ORF-1.

31. (Previously presented) The purified monoclonal antibody of claim 17, wherein the peptide has the sequence of HIV-1 ORF-4.

32-35. (Canceled)